

10-Generate intraoperative image/s of the target site.
20- Register the intraoperative images, the patient target site, and the surgical instruments into a common coordinate system
30- Track the position of the surgical instrument with respect to the patient target site
50- Indicate a spatial feature of the patient target site on the images of the patient target site
60- Project indicia on the images relating the position and orientation of the surgical instruments to the spatial feature of the patient target site

FIG. 1

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130) Generate a 2D or 3D intraoperative images of the patient target site from a given orientation
132) track the position of a surgical instrument with respect to the patient target site
136) Register the intraoperative images of the patient site, the patient target site, and the surgical instrument into a common reference coordinate system
150) Specify a spatial feature (shape and position)of the patient target site on the image
160) Correlate the position and orientation of the surgical instrument with respect to the target feature
170) Project indicia (3D shape or points and lines) on the intraoperative image relating the position and orientation of the surgical instrument to the target spatial feature

FIG. 2

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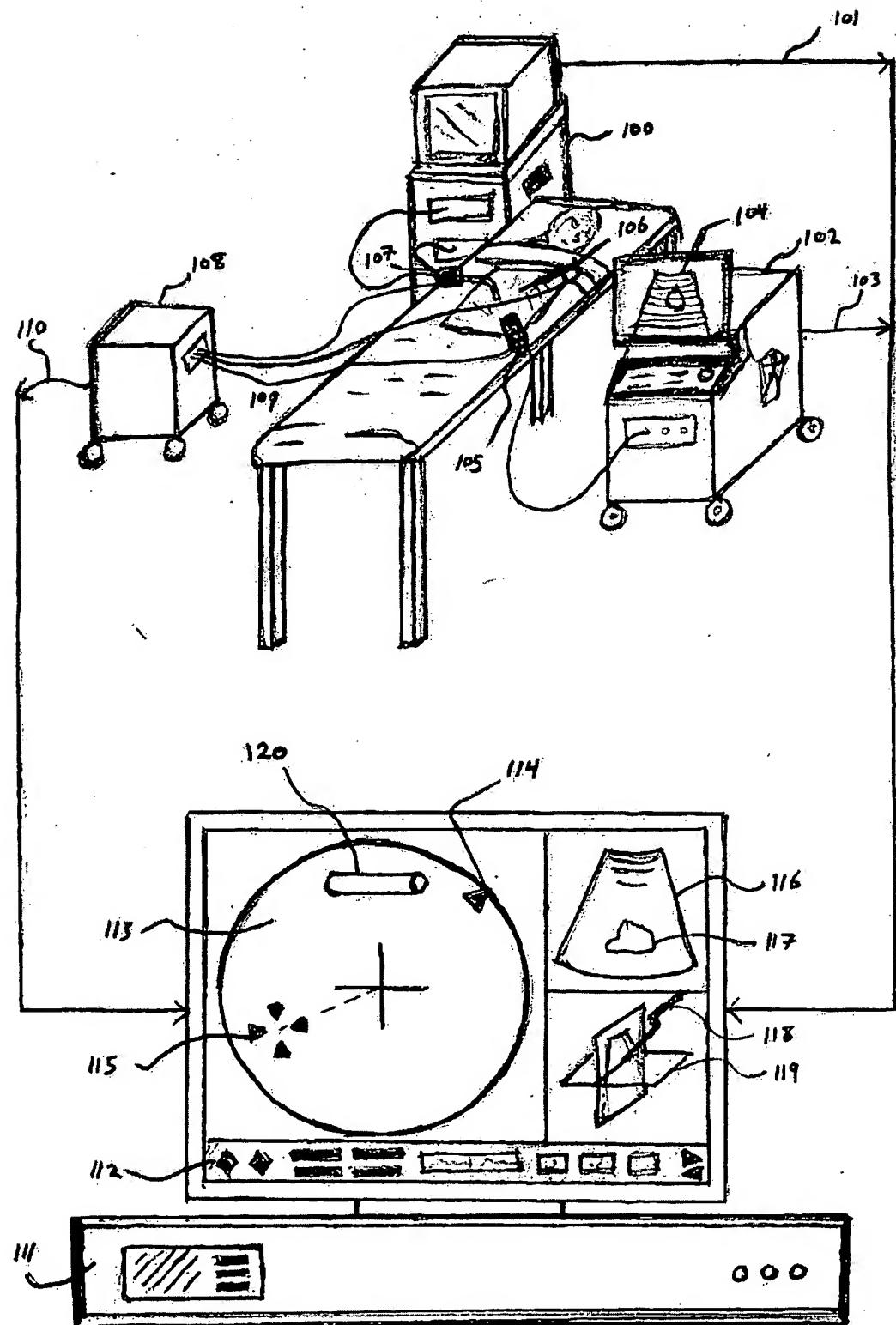
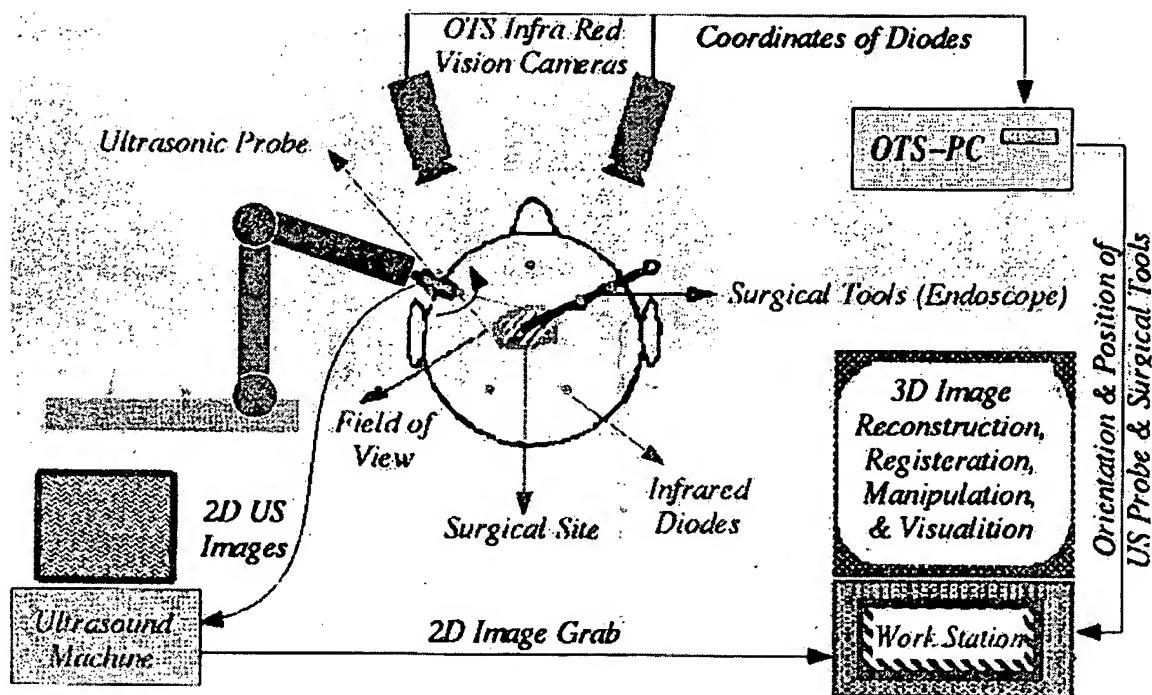


FIG. 3



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FIG. 4